

## ABSTRACT

A mechanism for remoting Twain function calls within a user session to a client system is disclosed. By hooking Twain function calls made by a Twain application on the server, the Twain function calls may be remoted over a virtual connection to a client system. A proxy application corresponding to the server-based Twain application is created on the client system. The proxy application communicates with the server and makes the appropriate function calls to the remainder of the Twain framework. The use of the proxy application allows multiple applications and devices to be supported simultaneously. Messages sent over the virtual connection are filtered prior to transmission thereby limiting the amount of required communication traffic. A multiplexor and demultiplexor are utilized in order to efficiently use bandwidth on the virtual channel. The present invention additionally compresses image data prior to transmission over the virtual channel.